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(54) Positive control of the source/drain-gate overlap in self-aligned TFTs via a top hat gate electrode configuration

(57) Positive control over the length of the overlap between the gate electrode (18) and the source and drain electrodes (36) in a thin film transistor is provided by a gate conductor layer (18) comprising two different conductors (14,16) having differing etching characteristics. As part of the gate conductor pattern definition process, both gate conductors (14,16) are etched to expose the underlying material (12) and the upper gate conductor layer (16) is etched back to expose the first gate conductor layer (14) in accordance with the desired overlap between the gate electrode (18) and the source and drain electrodes (36). Thereafter, the remainder of the device is fabricated with the source and drain electrodes (36) self-aligned with respect to the second gate conductor layer (14) using a planarization and non-selective etch method.

